BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Draft Strategic Energy Assessment
January 1, 2016-December 31, 2022

Docket No. 5-ES-108

COMMENTS OF THE WISCONSIN INDUSTRIAL ENERGY GROUP AND WISCONSIN PAPER COUNCIL

A. INTRODUCTION

The Wisconsin Industrial Energy Group (WIEG) and Wisconsin Paper Council (WPC) (collectively, the Industrial Customer Groups or ICG) appreciate the Public Service Commission of Wisconsin (the Commission or PSCW) staff's effort and commitment in preparing the Draft Strategic Energy Assessment (DSEA) for January 1, 2016 through December 31, 2022.

The PSCW is required by Wis. Stat. § 196.491 to prepare a biennial Strategic Energy Assessment (SEA) that evaluates the adequacy and reliability of Wisconsin's then-current and future electrical capacity and supply. Other statutory requirements also include assessing whether the electric capacity and energy is available at a reasonable price and the extent to which effective competition is contributing to a reliable, low-cost, and environmentally-sound source of electricity for the public.

The current DSEA provides a reasonable snapshot of Wisconsin's energy situation and indicates that, as a whole, the state will have sufficient planning reserve margins to reliably serve load through 2022. While the assessment regarding resource adequacy and reliability is fairly comprehensive, the DSEA would benefit from a more practical evaluation of whether both

energy and capacity are available at a reasonable price. The information necessary to compare the relative competitiveness of Wisconsin's energy rates with neighboring states and the rest of the country could easily be incorporated into the DSEA; that information will show that energy and capacity are not available at reasonable prices in Wisconsin. Indeed, the rate trends clearly show that Wisconsin's relative industrial rate competitiveness has declined. It is particularly troubling to note in a state whose economy is built on manufacturing that in 2015, not only did Wisconsin have the highest average industrial rate when compared to surrounding states, the Midwest and U.S. averages respectively, but the growth rate from 2001 to 2015 was the highest as well. This trend is of grave concern and results in more industrial load being at risk of expanding or relocating in states with greater market access and/or much lower rates.

Action needs to be taken now to prevent the situation from deteriorating further. One important and successful solution is for all investor-owned utilities to offer real time pricing options for existing load (e.g., Wisconsin Public Service Corporation's (WPSC) Real Time Market Pricing rate) that mimic options available in retail choice states. Absent a change in current state law, such rates are a good hybrid solution and reasonable proxy for rates enjoyed particularly in retail choice states, provided the adder is at a reasonable level.

With respect to the impact of effective competition on price, conventional wisdom and economic theory dictates that competition helps drive down costs and limit or eliminate market power concerns. In this regard, ICG offers various policy recommendations for the Commission's consideration and in many cases, further reinforces the Commission's efforts. These include competitive bidding and/or least cost considerations for transmission and generation construction projects, sale of excess capacity and introduction of additional innovative rate options.

ICG appreciates and reinforces the Commission's leadership efforts in challenging the Environmental Protection Agency's (EPA) Clean Power Plan, and its advocacy to protect Wisconsin's interests at MISO. While ICG recognizes that the SEA is not meant to be a prescriptive report and an exclusive basis for ordering action by the Commission, our interest in providing recommendations and alternatives is to bring them to the Commission's attention to help spur future action to improve Wisconsin's industrial rate competitiveness situation.

B. DETAILED COMMENTS

Wisconsin Stat. §196.491(2) specifically require the Commission to assess:

a. the adequacy and reliability of purchased generation capacity and energy to serve the needs of the public;

b. the extent to which the regional bulk-power market is contributing to the adequacy and reliability of the state's electrical supply;

c. the extent to which effective competition is contributing to a reliable, low-cost, and environmentally-sound source of electricity for the public; and

d. whether sufficient electric capacity and energy will be available to the public at a reasonable price.

ICG evaluated the DSEA content related to these statutory requirements. The comments below provide insights using information provided in the DSEA along with recommended action and, in some cases, suggest modifications that should be included in the final SEA.

1. REGIONAL BULK POWER MARKET AND ELECTRIC SYSTEM ADEQUACY AND RELIABILITY

a. **Resource Adequacy:** The findings in the DSEA suggest that Wisconsin expects to have, in the aggregate, adequate and reliable supply ranging from a planning reserve margin of 17.5% in 2016 to 14.2% in 2022 on an unforced capacity basis. The retirement of smaller

and older coal units, as well as new generation, are included in these planning reserve margin calculations. The following should be included to further clarify and enhance the discussion regarding electric system adequacy and reliability in the final SEA:

- As noted immediately above, the current DSEA calculates resource adequacy on the basis of unforced capacity; previous SEA reports calculated resource adequacy on the basis of installed capacity.[1] As a consequence, those using the SEA will have difficulty drawing conclusions when contrasting this year's SEA with those in the past. To make an apples-to-apples comparison, the data for 2016 in Table 1 of the DSEA should show the planning reserve margin on an installed capacity basis (as has historically been the case). Further, the final SEA should also address the difference between the two approaches in calculating the planning reserve margin and factors that impact the calculations such as forced outage rates, load forecasting uncertainty, etc.
- It would be helpful to explicitly acknowledge earlier in the report that individual utilities may be short or long and that the planning reserve margin requirements include the potential acquisition of new generation capacity for some utilities and a capacity surplus for other utilities.
- Similar to statistics regarding demand, it is relevant to include information on historical and projected energy consumption as well.

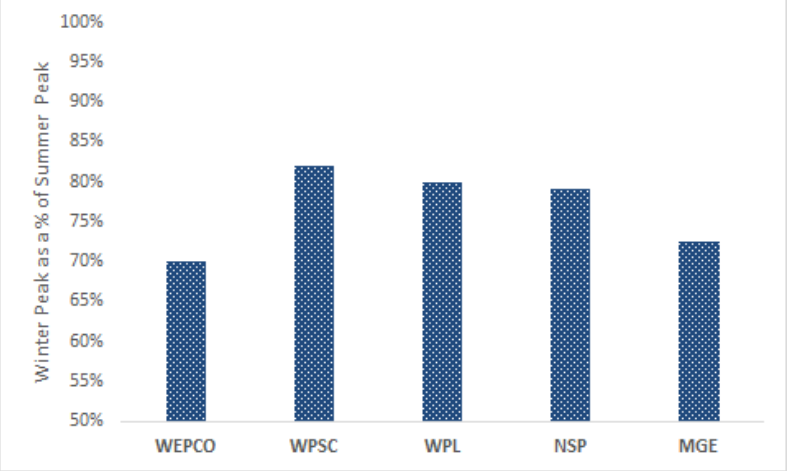
2. **Peak Demand Trends:** The data provided in the DSEA reaffirms that Wisconsin utilities are summer peaking and this trend is expected to continue.[2] Figures 4 and 5 of the DSEA show the summer and winter peak demands for the period 2003-2015 for American

[1] Unforced capacity means incorporating forced outage rates for each generation resource owned or acquired by the utility. Midcontinent Independent System Operator (MISO) utilizes the unforced capacity method in calculating the planning reserve margin,
[2] See Table 4, page 13, DSEA

Transmission Company (ATC)[3]. These graphs shows that in any given year, the largest summer peak is higher than the largest winter peak including the polar vortex year in 2014. Further, it appears that for the period 2003-2015, on average, the winter peak is approximately 80% of the summer peak for load in the ATC footprint.[4]

Data from individual investor-owned utilities indicate that for 2016, winter peaks are expected to range from 70%-82% of the summer peak. Since summer peaks drive the need to build generation infrastructure to satisfy capacity obligations of both MISO and Wisconsin, it is important to incorporate this important cost causative characteristic in the utility's cost of service.[5] In this regard, ICG appreciates that some utilities have recognized this aspect in their base or preferred class cost of service studies.[6]

FIGURE 1: WINTER PEAKS AS A PERCENT OF SUMMER PEAKS FOR 2016



[3] As noted in the DSEA, the data is for all investor owned utilities (and WPPI Energy) in the ATC footprint and thus includes load served in Michigan's UP. However, as a practical matter, 92% of the load is located in and representative of Wisconsin.

[4] The average of the winter peak as a percentage of summer peak was derived by initially calculating the year-by-year percentage and then averaging the percentages to arrive at the 80% for the period 2003-2015.

[5] ICG recognizes that MISO is investigating a seasonal construct. However, MISO's proposal has not garnered support from stakeholders. A motion to implement MISO's proposal failed by consent at the Resource Adequacy Sub Committee in early May.

[6] See for example, Rogers direct testimony in 05-UR-107, Marx direct testimony in 4220-UR-121.

b. **Transmission Planning:** The DSEA provides information regarding the MISO transmission planning process, including the projected costs associated with MISO's transmission expansion plan. The DSEA also informs the reader about proposed transmission projects by transmission providers in the state including ATC, Dairyland Power (DPC) and Northern States Power Wisconsin (NSPW). ICG believes that it is very important that the DSEA report also elaborate on the rate impacts associated with transmission constructed in Wisconsin and elsewhere.

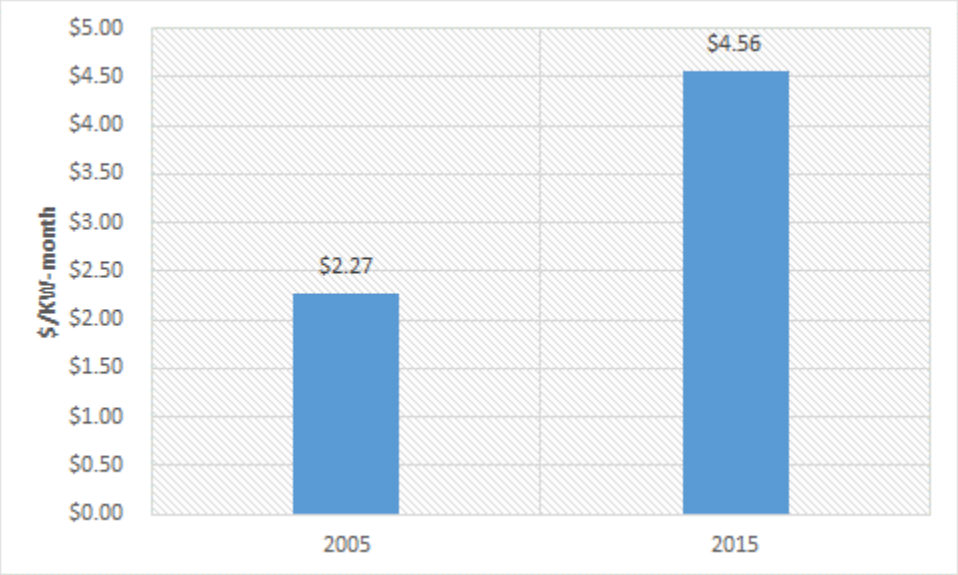
ICG members have been very concerned about the rising transmission costs at MISO. Indeed, as a result of these concerns, in 2013, several industrial customer groups including WIEG jointly filed a Section 206 Complaint at the Federal Energy Regulatory Commission (FERC) regarding the high Return on Equity (ROE) earned by transmission-owning members at MISO.[7] As the Commission is aware, all transmission-owning entities earn a base ROE of 12.38% (except ATC, which earns an ROE of 12.2%). The industrial group coalition also participated in the Second ROE Complaint filed by Southern Cooperatives.[8]

ATC is the stand-alone transmission services provider for most of Wisconsin. Investor-owned utilities such as WPSC, Wisconsin Electric Power Company (WEPCO), Madison Gas & Electric (MGE) and Wisconsin Power & Light (WPL) pass through the transmission charges billed from ATC, to the retail customers. Every year, ATC provides a 10-year assessment of projected system improvements and related costs. For the last several years, ATC continues to forecast 10-year capital expenditures in the billions of dollars ranging from a low of $3 billion to a high of $4.8 billion.[9] ICG members have expected these expenditures to reduce over time, particularly when demand growth conditions

[7] See FERC docket EL14-12
[8] See FERC docket EL15-45
[9] See ATC's 2015 Ten Year Assessment, page 3

continue to be soft. However, this has not been the case. As noted in Figure 2, in 2005, ATC's Network Integrated Transmission Service (NITS) rate was $2.27 per KW-month. For 2015, it was $4.56/KW-month, a 100% increase. It should be noted that these costs do not include the additional costs passed to retail customers associated with regional cost sharing (e.g., Multi Value Project (MVP) related costs are 100% socialized across the MISO footprint).

FIGURE 2: ATC'S NETWORK INTEGRATED TRANSMISSION SERVICE RATE



ICG members are gravely concerned not only about the historical rate impacts, but also about the expected increases given ATC's ten-year assessment. In this regard, ICG provides some recommendations and opportunities for the Commission to investigate in order to help lower transmission costs for Wisconsin customers. These are discussed further in Section 3.

In order to provide a more comprehensive perspective regarding transmission planning, ICG requests that the final SEA provide insights regarding the following:

a. historical and projected retail rate impacts associated with MISO and ATC related transmission planning; this information should also include the trend of transmission costs as a percentage of total costs;

b. retail customer impacts of the MISO cost allocation methods that include socialization of costs; and

c. cost recovery from Wisconsin ratepayers of projects built elsewhere, without prudency review.

This information will also assist the Commission in satisfying the statutory requirement to assess whether sufficient electric capacity and energy will be available to the public at a reasonable price.

3. SUFFICIENCY OF CAPACITY AND ENERGY AT A REASONABLE PRICE

Since Wisconsin does not have retail choice, PSCW relies on the regulatory rate-setting process and the competitiveness of the wholesale market to demonstrate the sufficiency of capacity and energy at a reasonable price. As a practical matter, that approach does not reflect the reality of energy options that manufacturers have. From ICG's perspective, a valid and key indicator of assessing reasonability of prices is to compare the relative competitiveness of Wisconsin's rates with neighboring states and the rest of the country. The DSEA notes that the rate trend in Wisconsin generally matches those in surrounding states. However, a review of Wisconsin's average industrial rates in comparison to surrounding states, regionally and nationally indicates otherwise.

Wisconsin's industrial rates are on an increasing trend and in 2015 were the highest when compared to surrounding states, regional and U.S averages respectively (see Figure 3). Also, as

shown in Figure 4, the increase in Wisconsin's industrial rates was the highest (78%) for the period 2001-2015, far outpacing increases in the Midwest, U.S. and CPI. [10]

FIGURE 3: AVERAGE INDUSTRIAL RATES IN 2015

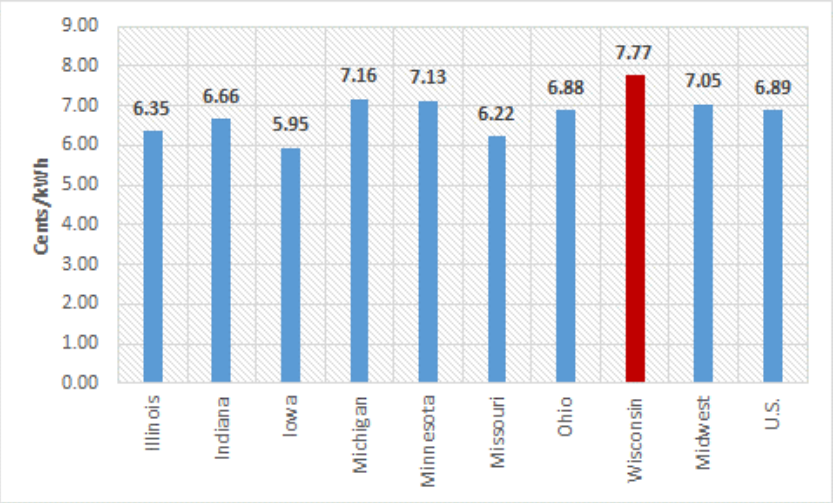
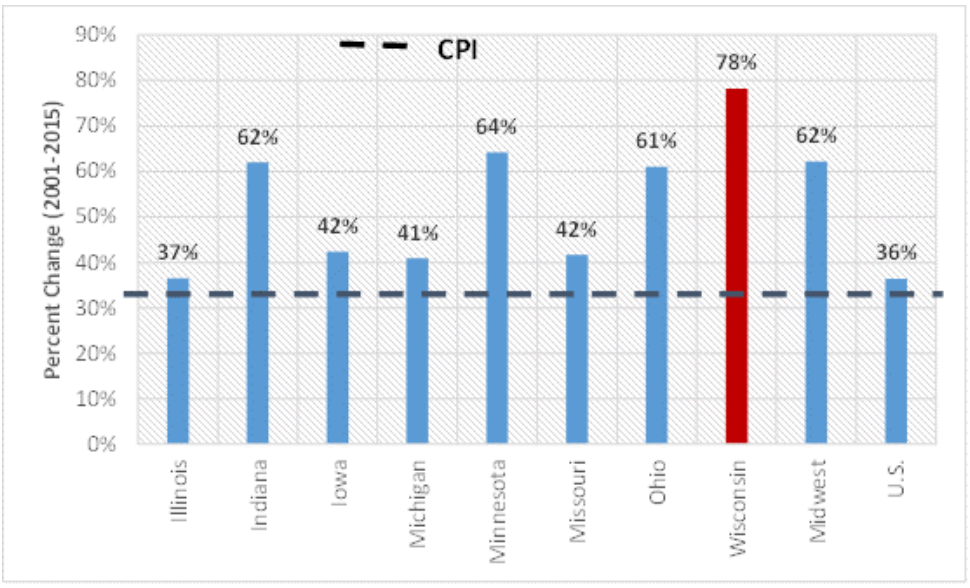


FIGURE 4: MIDWEST INDUSTRIAL ELECTRIC RATE TRENDS: 2001-2015



[10] ICG utilized the information from Energy Information Administration (EIA), Electric Power Monthly with updated data through December 2015 Table 5.6B issued February 2016. Tables 8-11 in the DSEA utilize EIA data from October 2015. These tables should be updated in the Final SEA using the actual data through December 2015. As noted in the DSEA, the Midwest region as defined by the U.S. Census Bureau; includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

While ICG recognizes that the increases are attributable in large part to the building of the state's generation and transmission infrastructure, our members are deeply concerned about the loss in competitiveness. For at least the past ten years, customers have been assured that rates in other states will "catch up" [11] to those in Wisconsin when out-of-state utilities begin to build their own infrastructure. Rate trends, with Wisconsin rates continuing to increase relative to neighboring states, clearly show the promise that other states' rates soon would be as high as they are in Wisconsin simply has not materialized. Rather, Wisconsin's average industrial rates are now the highest in the Midwest and significantly higher than the national average. Indeed, even as recently as 2009, Wisconsin's industrial rates were 1.5% *below* the national average while in 2015, they were 13% *above* the national average. ICG believes that it is highly important and relevant for the final SEA to include an assessment of the status of building generation and transmission cycles in other surrounding states and when the industrial rates of these states are expected to match or catch up to Wisconsin's rates.

Energy fuels Wisconsin's industry and Wisconsin's economy. Energy is a major cost of doing business, and its affordability can help or hinder job creation, particularly when those costs are greater than energy costs in neighboring states and other areas of the country. High energy costs directly impact the bottom line of industrial customers because, in many cases, these costs cannot be passed to downstream customers due to highly competitive business conditions.

Thus, there is high potential for adverse consequences as a result of declining industrial rate competitiveness including, but not limited to, the following:

[11] See for example, http://www.jsonline.com/business/107617468.html and https://news.google.com/newspapers?id=LzIqAAAAIBAJ&sjid=G0UEAAAAIBAJ&pg=4127%2C6481423

- High industrial rates for energy intensive customers impact important business decisions regarding whether to constrict, maintain, or expand production or relocate elsewhere. Many of ICG's members have multiple facilities across the U.S and compete for capital investment dollars between sister facilities to grow and expand in Wisconsin. If industrial rates in Wisconsin continue to rise faster than other states, there will be a higher potential to shift production and expand elsewhere;
- A combination of high industrial rates and competitive natural gas prices increases the propensity for industrial customers to evaluate and implement on-site generation options. Energy intensive industrial customers with energy costs that are a significant portion of their operating costs are most likely at risk to implement such options;
- Either of the above mentioned circumstances would result in lower electrical usage for utilities, which ultimately means that utilities' rates get even higher for all classes because the utilities' fixed costs would be spread over lower usage. Shifting production to other states also negatively impacts the local economy, employment and taxes. Thus, declining rate competitiveness adversely impacts not only the affected industrial plants, but has a snowball impact on the State's economy, employment and electricity rates.

ICG recommends that the final SEA should explicitly acknowledge the challenging situation associated with Wisconsin's industrial rates. In this regard, ICG particularly appreciates the Commission's efforts in advancing certain innovative real time pricing rate options to help regain industry competitiveness and strongly encourages the Commission to continue supporting these and similar endeavors. For example, the Commission's recent approval of a revised adder for WPSC's Real Time Market Pricing (RTMP) is a step in the right direction and ICG strongly encourages the implementation of similar tariffs for other utilities in

the state. There is a deepening sense of urgency to introduce such options which are readily available in states with retail choice because the reality today is that many large businesses are constantly comparing their Wisconsin rates with rates elsewhere and can readily shift their operations to states with lower rates and/or market access. Absent a change in current state law, real time market-based rates applicable to existing load are a good hybrid solution and reasonable proxy for rates enjoyed in retail choice states, provided the adder is at a reasonable level.

4. EFFECTIVE COMPETITION AND ITS IMPACT ON PRICE

Wis. Stat.§196.491(2)(a)12 requires the SEA to include an assessment regarding the extent to which effective competition is contributing to a reliable, low-cost, and environmentally-sound source of electricity for the public. As noted in the DSEA, "effective competition" is a term not specifically defined by statute. As such, it is subject to more than one interpretation. Since Wisconsin does not have retail competition, PSCW assesses in the DSEA, the impacts of the MISO wholesale energy market. The role of the Commission is also vitally important in regulating the utility monopolies and is meant to serve as a proxy to competition, through the creation of a system of incentives and penalties that aim to replicate the outcomes of competition in terms of consumer prices and protecting consumer interests.

ICG believes that there are areas of a utility's business that can and should also be subject to effective competition. Conventional wisdom and economic theory dictate that competition helps drive down costs and limit or eliminate market power concerns. In this regard, ICG provides options below for the Commission's consideration (and reinforces the Commission's efforts). Some of these options not only restore competitiveness for

manufacturers but mitigate rate impacts for all customers. While ICG recognizes that the SEA is not meant to be a prescriptive report and an exclusive basis for ordering action by the Commission, our intent in providing recommendations and alternatives is to bring them to the Commission's attention to help spur future action to improve Wisconsin's relative industrial rate competitiveness situation.

a. **Competitive Bidding for Transmission and Generation Construction Projects:** The current MISO tariff requires that (a) Reliability projects are to be implemented by the incumbent transmission service provider and (b) Market Efficiency and Multi-Value Projects (MVP) are subject to competitive bidding, meaning that transmission developers others than the incumbent can construct such projects provided they meet certain criteria as defined by MISO. For example, the Duff-Coleman project located in Indiana is the first competitively bid project to be constructed in MISO.

   While future Market Efficiency and MVP projects will go through competitive bid procurement, the MISO tariff provisions could result in an unintended consequence where incumbent providers have a higher motivation to construct Reliability projects because such projects are not subject to competition. Given the increasing trend of transmission costs, consideration should be given to evaluating the option of competitive bidding for Reliability based transmission projects in Wisconsin. Since the incumbent providers are sole bidders of such projects, it is a difficult task to assess the reasonability of costs, particularly when MISO focuses primarily on project need and not cost reasonableness. It should be noted that while the project would still be owned by the incumbent provider, the construction could be implemented by another entity assuming this is a lower cost solution.

   ICG also recommends, for increased transparency and accountability purposes, that

retail rates and bills include a separate line item for transmission charges. This should not be a difficult task, particularly since the transmission costs are pass through charges to retail customers.

Similar to transmission, construction of generation projects should, of course, be on a least cost basis driven by competitive forces. The ICG encourages and supports continued, and intensified (as may be periodically necessary), oversight by the Commission to assure that least cost status is achieved to the greatest extent within reason. That should occur in, for example, (a) technology selection, (b) design and engineering, (c) site considerations, (d) acquisition of materials and components, (e) timing and schedule adherence (i.e., avoidance of inflation impacts), and (f) financing. Diligence in assuring that competition drives these categories to least cost status is essential to achieve desirable cost savings for utilities, investors and customers.

b. Sale of Excess Capacity: ICG appreciates the Commission's leadership efforts in investigating ways to sell excess capacity to neighboring regional transmission organizations such as PJM. Since some Wisconsin utilities appear to have a high surplus for the next several years, ICG welcomes the opportunity to help the Commission and utilities in investigating tariff or other provisions that may be restricting the ability to sell excess capacity at the present time. The offsetting revenues from such sales would help lower costs for retail customers. For the near term, MISO's recently announced capacity auction price of $72/MW-day for Planning Year June 2016 – May 2017, for the Local Resource Zone (LRZ) where Wisconsin is located, should also help offset fuel costs for utilities who had excess capacity.

c. **EPA's Clean Power Plan:** ICG appreciates and lauds the Governor's and Commission's leadership efforts in challenging EPA's Clean Power Plan along with over 25 other states. The U.S. Supreme Court granted a stay of the rules while the litigation proceeds. Given the significantly high compliance costs, the manufacturing industry simply cannot bear these cost burdens which are projected to be in the billions of dollars.

d. **MISO Monitoring:** ICG appreciates the Commission's leadership efforts and active engagement at MISO and recommends its continued and valuable involvement to protect Wisconsin ratepayer interests. ICG members especially recognize the value of the Commission's efforts in filing a complaint at FERC regarding the cost allocation of System Supply Resources located in Michigan's UP and securing a decision from FERC that results in directing costs back to Michigan customers, who are the beneficiaries of these resources.

e. **Innovative Rate Options:** ICG appreciates the Commission's efforts in advancing certain innovative rate options to help regain industry competitiveness and strongly encourages the Commission to continue supporting these and other similar endeavors:

   i. The real time pricing rates applicable to new growth (available from WEPCO, WP&L, and WPSC) provides an opportunity for customers to respond to pricing signals and control costs without harming other customers. The Commission also approved WPSC's revised real time pricing rate for existing load last year and ICG would appreciate similar tariff structures to be provided by other investor-owned utilities as well. Real time pricing rates provide customers the opportunity to respond to pricing signals thereby giving industrial customers greater ability to manage their costs. Further, as mentioned

earlier, there is a heightened sense of urgency to introduce such options, as they are readily available in states with retail choice. Absent a change in current state law, such rates are a good hybrid solution and reasonable proxy for rates enjoyed in retail choice states, provided the adder is at a reasonable level.

ii. Since the Supreme Court reaffirmed FERC Order 745 and the role of demand response in wholesale markets, ICG encourages the introduction of additional rate options related to demand response. Such options would not only benefit industrial customers in that there would be more rate choices and alternatives to help manage costs, but implementation of these options would also help reduce utilities' overall system costs.

5. RECOMMENDATIONS CHECKLIST

a. Recommendations for Clarification and Inclusion in Final SEA

- Include Planning Reserve Margin metric using installed capacity and clarify differences between this metric calculation using installed capacity versus forced capacity;
- Clarify earlier in the report that some utilities may be short and building generation while others may have a surplus;
- Include facts and figures regarding energy consumption;
- Provide historical and projected retail rate impacts associated with MISO and ATC related transmission planning including the trend of transmission costs as a percentage of total costs;
- Provide retail customer impacts of the MISO cost allocation methods that include socialization of costs;
- Provide cost recovery impact from Wisconsin ratepayers of projects built elsewhere, without prudency review;
- Evaluate industrial relative rate competitiveness and include an assessment of the status of building generation and transmission cycles in other surrounding states and when the industrial rates of these states is expected to match or catch up to Wisconsin's rates.

b. Policy Recommendations for Current and Future Action

- Incorporate the important cost causative characteristic of summer peaking nature of peak demand in the utility's cost of service;
- Implement competitive bidding and/or least cost options for transmission and generation construction projects;
- Continue to protect Wisconsin's interest in regards to EPA related policies and at MISO
- Implement WPSC's real time pricing rate for existing load with a reasonable adder at all utilities
- Introduce additional demand response based rates

ICG thanks the Commission staff for preparing the DSEA and for the opportunity to participate in this important endeavor and welcomes the prospect of working with the Commission and the utilities to help restore Wisconsin's relative competitiveness.

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